

moderately dense in swamps and on levees.

## FLORA AND FAUNA

The native plants and animals of Bladen County are characteristic of the Atlantic and Gulf Coastal Plain Province, a biological and geological region that stretches from southeastern Massachusetts south to Florida and west to east Texas (Thorne 1993). Bladen County is located on a geological feature known as the Cape Fear Arch, which stretches from Cape Lookout in North Carolina to Cape Romain in South Carolina. The Cape Fear Arch region appears to have a higher native plant and animal diversity than any other area of similar size along the Atlantic Coast north of Florida. Biological diversity in Bladen County is also enhanced by its position as a corridor between the outer Coastal Plain and Sandhills Region, and by the number and quality of natural communities present. Because of this diversity of species and habitats there is a large number of rare plants and animals that are native to the county. Among these are 62 plant species (Appendix 2) and 54 animal species (Appendix 3) that are recognized as rare at the Federal or State level (Franklin and Finnegan 2004; LeGrand et al. 2004). The rare plants include 61 flowering plants and one moss. The rare animals comprise three mammals, seven birds, 10 reptiles, four amphibians, four fishes, and 26 invertebrates. The majority of rare plants and animals in Bladen County are associated with two habitat groups: the longleaf pine and pocosin ecosystem, and wetlands and flooded areas associated with the county's rivers, streams, isolated ponds, old impoundments, and seasonally flooded depressions.

Bladen County contains significant populations for a number of these rare plants and animals, including some that are globally endangered. Among the rare plants are Federally and State Endangered southern spicebush (*Lindera melissifolia*), roughleaf loosestrife (*Lysimachia asperulifolia*), and chaffseed (*Schwalbea americana*, known only historically from the county). Another 14 rare plants are recognized as Federal Species of Concern due to the apparent limited number of global populations. Five of these Federal Species of Concern are listed as State Endangered, another six are listed as State Threatened, and one listed as State Special Concern. Among non-federally designated species are one State Endangered and one State Threatened species. Altogether, there are 17 plant species in Bladen County listed as Endangered, Threatened, or Special Concern by the state. Among the 62 rare plant species reported from Bladen County, 22 have not been seen in over 20 years and are regarded as historical (see Appendix 2).

Bladen County contains the only documented record in North Carolina for climbing aster (*Ampelaster carolinianus*), found in 1957 south of Elizabethtown and not seen since. Significantly, the county contains the only currently known populations in the state for heartleaf sandmat (*Chamaesyce cordifolia*), bent hawthorne (*Crataegus geniculata*), Florida sunflower (*Helianthus floridanus*), and fringed yellow stargrass (*Hypoxis juncea*). Another three plants are currently known from Bladen County and only one other county in the state: sandhill three-awn (*Aristida condensata*), leafless watermilfoil (*Myriophyllum tenellum*), and twisted-leaf goldenrod (*Solidago tortifolia*). Another three plant species found in Bladen County are currently known from only three sites in the state: golden hedge-hyssop (*Gratiola aurea*), southern spicebush (*Lindera melissifolia*), and Chapman's arrowhead (*Sagittaria graminea* var. *chapmanii*). Spiked